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PROGRESS REPORT #4, JANUARY 1, 1973 ERTS-1 PROPOSAL NMC No. 0205 CONTRACT NO. NAS5-21724 1'Made available under NASA sponsorship In the interest of early and wide dissemination of Earth Resources Survey Program information and without liability for any use made thereof."

Title: "Detection and Monitoring Vegetation Damage Associated with Highways and Highway Facilities"; GSFC ID ST 350

By: Ernest G. Stoeckeler, Principal Investigator

E7.2 10.3.71. CR-129829

Problems

1. No ERTS-1 color composites, on order for nearly two months, have been received to date. These data products are vital for the identification of vegation types, and especially for the discernment of stressed vegetation.

Accomplishments

- 1. In coniferous forests damaged areas considerably less than an acre in extent were readily discernible in the RC10 CIR underflight photography taken on 20 September. An analysis of the Vinten CIR photos, which was received in the latter part of December, is currently in progress.
- 2. The locations of approximately one hundred maintenance lots, or sand-salt storage areas, have been pinpointed on USGS 15-minute quadrangle maps. Underflight CIR photos covering these sites are currently being studied in detail to determine the extent and location damage associated with these facilities. Both RC10 and Vinten photography are being used in this study.

Planned for Next Period

1. Arrangements are being made to utilize the General Electric GEMS facility to extract vegetation damage information from a single ERTS scene obtained on 1 September 1972. An attempt will be made to identify signatures of stressed areas located in different forest types and to determine the minimum size area of distressed vegetation that can be detected.

(E72-10371) DETECTION AND MONITORING VEGETATION DAMAGE ASSOCIATED WITH HIGHWAYS AND HIGHWAY FACILITIES Progress E.G. Stoeckeler (Maine Dept. of Transportation, Augusta.) 1 Jan. 1973 2 p CSCL 08F

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Unclas G3/13 00371 2. A list of descriptors by band and color composites will be compiled for the three cloud-free scenes now available.

